

REMARKS

Claims 1-23 are pending in the current application. Claims 1, 14, 16, 18, and 21 are independent claims.

Rejections under 35 U.S.C. § 102(b)

Claims 1-17 and 21-33 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by US Patent No. 5,506,874 (“Izzard”). Applicants respectfully traverse this rejection.

Izzard is directed to a phase detector and method that uses a series of latches and quadrature clock signals. However, as shown in FIG. 1 of Izzard, quadrature clock signals I and Q are not used to control the latching of the latches, but rather, are used as data inputs to the latches. Izzard states explicitly, “Input signal I is applied to the input of latch 12 and of latch 14 [column 2, 54-55]” and “Input signal Q is applied to the input of latch 16 and also to the input of latch 18 [column 2, lines 63-64]”. The latching of the latches in the arrangement of Izzard are controlled by a signal D, which is fed into the clocking input of each latch, as shown in FIG. 1. Signal D is not a quadrature clock signal.

In contrast, independent claim 1 recites four latches “controllable to latch, at different times according to quadrature clock signals”. Similarly, independent claim 15 recites data latches, “the latches being clocked by quadrature clock signals”; independent claim 16 recites four XOR gates receiving latched signals, which are “latched according to one of quadrature clock signals”; and independent claim 21 recites a method including “latching, at different times according to quadrature clock signals”. Thus, Izzard fails to teach or disclose all the features or operations of independent claims 1, 14, 16, and 21.

Therefore, for at least such reasons, independent claims 1, 14, 16, and 21 are allowable over Izzard, and their corresponding dependent claims are allowable over Izzard at

least for their dependence from an allowable base claim. Accordingly, Applicants respectfully request that the rejection of claims 1-17 and 21-33 under 35 U.S.C. § 102(b) be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Izzard in view of US Patent No. 6,847,789 (“Savoj”). Applicants respectfully traverse this rejection.

The Examiner points to FIG. 11, and in particular to phase detector 10 and voltage controlled oscillator (VCO) 38, as describing a clock and data recovery circuit including a phase detector controllable by the output of a quadrature VCO. Izzard states that the output of VCO 38 in FIG. 11 is the quadrature clocking signal I [column 6, lines 23-24]. As described above, the quadrature clocking signal I does not control the phase detector 10, but rather, I is used as a data input to one or several of the latches of the phase detector 10, as shown in FIG. 1 of Izzard. Thus, the phase detector 10 of Izzard is not controllable by the output of the VCO 38.

In contrast, independent claim 18 recites a clock and data recovery circuit including a phase detector, “the phase-detector being controllable by the output of the VCO”. Again, signal D controls the phase detector by controlling the latching of the latches in the arrangement according to Izzard, and signal D is not the output of VCO 38. Furthermore, Savoj fails to cure the deficiencies of Izzard, and thus, the combination of Izzard in view of Savoj fails to teach or suggest all the features of independent claim 18.

Therefore, for at least such reasons, independent claim 18 is allowable over Izzard in view of Savoj, and dependent claims 19 and 20 are allowable over Izzard in view of Savoj for at least their dependence on an allowable base claim. Accordingly, Applicants respectfully request that the rejection of claims 18-20 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-23 in connection with the present application is earnestly solicited.

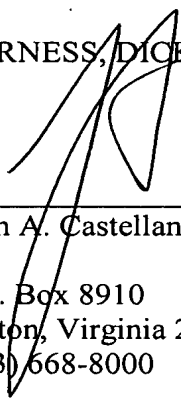
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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